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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/381,243	01/21/2000	CHARLES R. HASKINS	064385-5030	3704

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MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER
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SUBRAMANIAN, NARAYANSWAMY

ART UNIT	PAPER NUMBER
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3691

MAIL DATE	DELIVERY MODE
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01/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/381,243

Applicant(s)

HASKINS ET AL.

Examiner

Narayanswamy Subramanian

Art Unit

3691

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-46 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 24-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-11, 13-23, 45 and 46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This office action is in response to applicants' communication filed on December 10, 2007. Objections to claim 44 are withdrawn in view of the amendments made in Applicant's communication of June 1, 2007. Claims 1-11 and 13-46 are currently pending. Examiner acknowledges the applicant's provisional election of claims 9-11, 13-23, 45, and 46 with traverse in response to restriction/election requirement. Claims 1-8 and 24-44 have been withdrawn from consideration as being drawn to a non-elected invention. Applicants are respectfully requested to cancel the non-elected withdrawn claims 1-8 and 24-44 in response to this office action. Claims 9-11, 13-23, 45 and 46 have been examined. The response to amendment and rejections are stated below.

#### ***Response to Amendment***

2. In response to Applicant's assertion "Applicant traverses the Examiner's nine-way restriction of the application on the grounds that the basis for restriction pursuant to M.P.E.P. §803 has not been met", the examiner respectfully disagrees. The case for restricting the inventions was already made in the last office action. However for the sake of clarity some of the discussions from the last office action are reiterated below. For instance, Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. As is obvious from the preambles, the steps of the methods and their separate utility, the inventions have different scopes and they are not obvious variants of each other. Each invention has a utility which is different from that of other inventions. For these reasons and those stated in the last office action the inventions are

distinct from each other. See MPEP § 806.05(d). Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper, even though they are classified in the same class and subclass.

In response to Applicant's assertion that search and examination of the entire application can be made without serious burden, the examiner respectfully disagrees. The case for the inventions being distinct was already made in the last office action. Also the inventions require separate searches. Unlike other art units where the searches are primarily focused on patent literature, in business methods a bulk of the search is in non-patent literature, which imposes a serious burden on the examiner if two or more inventions have to be searched. For these reasons and reasons cited in the last office action the restriction is maintained.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 13-14, 16-17, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfberg et al. (US Patent 5,214,579) in view of Anonymous Asset allocation programs Reference and further in view of Edesess (US Patent 5,884,287).

Claim 9, Wolfberg teaches a method for projecting an accumulated investment amount for a portfolio having a plurality of funds over a preselected time period for a user, comprising

the steps of: inputting initial and periodic contributions and fund allocations for the plurality of funds (See Wolfberg Column 1, lines 55-60); automatically calculating the time needed to process a projection of the accumulated investment amount for the portfolio having the plurality of funds (See Wolfberg Column 1, lines 60-67); automatically performing a projection of the accumulated investment amount for the portfolio having the plurality of funds (See Wolfberg Column 1, lines 60-67).

Wolfberg does not explicitly teach the step of completing a projection method parameters file in which various parameters are identified, including a probability that a fund will exceed a projected yield in any year.

The Anonymous reference discloses the step of completing a projection method parameters file in which various parameters are identified (See Anonymous, Page 3, lines 21-27)

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Wolfberg and Anonymous so that a user of the system would have a formal way to project the future value of the investment and make adjustments in the portfolio if it is not performing up to standards.

The references do not explicitly disclose wherein the parameters include a probability that a fund will exceed a projected yield in any year.

Edesess discloses a system and method for generating and displaying risk and return in an investment portfolio including a probability function for achieving a projected yield (See Edesess abstract, Figure 2 Ref 70; Fig 6).

It would have been obvious to one of ordinary skill in the art at the time of invention to include the teachings of Edesess to the disclosure of Wolfberg to create an optimal investment

plan given wealth goals stated in probabilistic form. An investor can then see the overall risk related to overall return across an entire distribution.

Claim 13, Wolfberg discloses the step of, if the user interrupts the step of automatically performing a projection of the accumulation amount for the plurality of funds, automatically presenting completed projections (Column 1 lines 60-67, Column 9 lines 26-30).

Claim 14, Wolfberg discloses the step of automatically prompting the user prior to performing the step of automatically calculating a projection completion time. In the Wolfberg disclosure, the user is prompted to validate his or her identity before performing any requested services. In this way the system is protected against possible fraudulent use.

Claim 16, Anonymous further discloses the step of automatically performing a projection of the accumulation amount for the plurality of funds further comprising the steps of: Inputting data for the projection (See Anonymous Page 3, lines 13-14; optimization techniques); automatically performing a distribution model (See Anonymous Page 3, lines 13-20). The "efficient frontier" model discussed is a distribution model of rate versus return.

Claim 17, Anonymous discloses the step of automatically performing a projection of the accumulation amount for the plurality of funds further comprising the steps of: inputting data for the projection (See Anonymous Page 3, lines 13-14; optimization techniques). While Anonymous does not explicitly disclose setting a yield equal to the index performance for a predetermined number of simulations, this step would be obvious to someone skilled in the ordinary art. The reason an investor would use a system such as this would be with the goals of receiving a higher yield on their money than the standard index. If the user was looking to achieve were the yield of the index, then they would not need this system but rather would

simply invest their assets evenly across the board. The higher yield is what would motivate them to use an investment management system. Automatically performing a distribution model for the number of simulations greater than the predetermined number (See Anonymous Page 3, lines 13-20)

Claims 45 and 46, Wolfberg discloses automatically determining the accumulated investment amount for the pre selected time period

The references do not explicitly disclose discounting the accumulated investment amount by a reserve interest rate and using a reserve investment rate or determining a present value of a future guarantee charge for the accumulate investment amount. However it was well known to anyone skilled in the ordinary art that both discounting an investment using an interest rate or reserve investment rate and finding the present value of a future value were common practices in the financial community. An investment manager would be motivated to discount the accumulated investment amount by certain factors to get a better understanding of the current market value of the investment as opposed to the redemption value (guaranteed amount). In the same manner, taking the present value of known future charges allows these charges to be factored into the present accumulation amount to get a better understanding of the "real" value of the current investment and helps to determine how much money needs to be invested currently to achieve the desired future value (guaranteed amount).

5. Claims 10-11, 15, 18-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfberg et al. (US Patent 5,214,579) in view of Anonymous Asset allocation programs Reference and further in view of Edesess (US Patent 5,884,287) and Lane et al. Reference.

Claim 10, Wolfberg in view of Anonymous in view of Edesess discloses the claimed method 9 supra except for the disclosure wherein the investment fund comprises select funds.

Lane discloses the use of select funds such as US Treasury Bills, Certificates of Deposits, US Treasury Notes and Federal Agency Bonds. It would have been obvious to someone skilled in the ordinary art to include the teachings of Lane to those of Anonymous in view of Wolfberg because selected funds, such as the ones noted, are notoriously well known in the art as investment vehicles.

Claim 11, Wolfberg in view of Anonymous in view of Edesess discloses the claimed method 9 supra except for the disclosure wherein the investment fund comprises variable.

Lane discloses the use of variable annuities such as US Treasury Bills, Certificates of Deposits, US Treasury Notes and Federal Agency Bonds. It would have been obvious to someone skilled in the ordinary art to include the teachings of Lane to those of Anonymous in view of Wolfberg because variable annuities, such as the ones noted, are notoriously well known in the art as investment vehicles.

Claim 15, Wolfberg in view of Anonymous in view of Edesess discloses the claimed method 9 supra and Wolfberg further discloses the step of automatically deducting a service charge (Column 2, lines 42-49).

None of these references disclose inputting the average yield for each of the plurality of funds or calculating the average projected yield for each of the plurality of funds.

Lane discloses both of these features in Table 2 (Page 105). It would have been obvious to someone skilled in the ordinary art at the time of invention to include the average yield inputs and projects to Wolfberg in view of Anonymous so that a user can see the current returns



associated with individual funds, and also the projections of the same funds so that they can determine if the potential future returns are in sync with their financial goals.

Claim 18, Wolfberg in view of Anonymous in view of Edesess discloses the claimed method 9 supra. Anonymous further discloses automatically performing a distribution model to generate multiple accumulation amounts (Page 3, line 13-20).

Lane discloses, in Table 3, automatically performing a projection of the accumulation amount for the plurality of funds further comprising an average annual change in index performance for each index fund. In the table, the current yields are given, and the future forecasted yields are given, so it would be simple to calculate the average change over time.

The references do not teach automatically performing a normal distribution random projection, a standard deviation model or automatically deducting a predetermined percentage of annual yield from the projection of index appreciation. However, performing a normal distribution projection and finding the standard deviation of a set of numbers is notoriously well known in the art of statistics. Portfolio modeling uses statistical reasoning as a foundation for projecting numbers. It follows then that most systems for portfolio modeling would use statistical reasoning, including the "efficient frontier" model of Anonymous. This "optimization technique" could well use normal distributions and standard deviations to help project the value of investments. Furthermore, deducting a percentage of annual yield from the projection of annual index appreciation is a well known method to adjust for inflation to come to a "real value" of a projected number.

Claims 19 and 20, Wolfberg in view of Anonymous in view of Edesess the claimed method 9 and 16 respectively, as stated previously and Wolfberg further discloses automatically deducting a service charge (See Wolfberg Column 3 lines 42-49)

Lane discloses inputting a number of scenarios and number of simulations (See Lane Page 107, lines 10-15); automatically generating a random number for a first simulation (See Lane Page 103, lines 12-17; inputting projection method factors (See Lane Page 107, lines 17-23); automatically generating a first simulation result for a random distribution model (See Lane Page 104, lines 1-5); automatically generating a new random number from the first random number (See Lane Page 104, lines 5-13); automatically generating a new simulation result for the random distribution model (See Lane Page 104, lines 5-13).

While Lane does not explicitly disclose automatically repeating steps e (automatically generating a new random number) and f (automatically generating a new simulation) a number of times equal to the number of simulations inputted less two simulations, official notice is taken that it was well known in the art at the time of invention to run a simulation a number of times and that the number of times can be set by the operator. Therefore it would have been obvious to someone skilled in the ordinary art at the time of invention to run the Lane simulation multiple times, in order to compare the risks of investment decisions.

Lane also discloses automatically imputing the output of step g as the average yield for each of a plurality of funds (See Lane Page 105, Table 2); automatically calculating the average projected yield for each of the plurality of funds (See Lane Page 106, Table 3, Forecast Yields); automatically generating a first simulation result for the random distribution model for a new simulation (See Lane Page 103, lines 12-17) and; automatically repeating steps e through j a

number of times equal to the number of scenarios inputted less one scenario to produce outcomes for each of the plurality of scenarios (See Lane Page 105-106, Tables 2 and 3)

Claim 21, Wolfberg in view of Anonymous in view of Edesess discloses the claimed method 16 as previously stated. Lane discloses a method wherein the projection method factors include a standard deviation, an average yield for the plurality of funds (See Lane Page 113, Table 4), and a probability that the average yield for the plurality of funds will exceed the projected yield in any year (See Lane Page 115, Fig 5).

Claim 23, Wolfberg in view of Anonymous in view of Edesess and Lane disclose the claimed method 18 as previously stated. While the references do not explicitly disclose wherein the plurality of funds includes at least one index fund, it was well known in the art at the time of invention to use index funds as investment vehicles. Therefore it would have been obvious to someone skilled in the ordinary art at the time of invention to use an index fund, because they provide instant diversification of a portfolio, and provide a good basis for comparison because they are designed to track the movement of particular indices (i.e. S&P 500 index funds).

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfberg in view of Anonymous in view of Edesess as applied to claim 16 above, and further in view of Lewellen (Simulation versus Single-Value estimates in capital expenditure analysis, in Modern Developments in Financial Management, ed. By Myers, S.C., The Dryden Press-Praeger Publishers, Inc., 1976, pages 442-463).

Claim 22, Wolfberg in view of Anonymous in view of Edesess discloses the claimed method 16 as stated previously but does not disclose wherein the random distribution simulation includes a Monte Carlo simulation.

Lewellen discloses such a step (See Lewellen Page 457, lines 1-25).

It would have been obvious to someone skilled in the ordinary art at the time of invention to include the step taught by Lewellen because a Monte Carlo simulation was a well known simulation method used to generate values for investment projections.

***Response to Arguments***

7. In response to Applicant's arguments that there is no motivation to combine the cited prior art, the examiner respectfully disagrees. First of all the references combined teach all the claimed limitations as discussed in the rejection of the claims. Secondly in the motivation statement for each rejection is implied a reasonable expectation of success. Thirdly the examiner would like to respectfully point out that KSR (*KSR International Co. v Teleflex Inc.*, 550 U.S. 82 USPQ2d 1385 (2007)) forecloses the argument that a specific teaching, suggestion or motivation is required to support a finding of obviousness.

In response to Applicant's arguments "The teaching in Edesses relates to generating a risk and return in a portfolio and the probability that of achieving a required rate for a portfolio, which is not the same as calculating a probability that a fund will exceed a projected yield in any year. Therefore, Applicant respectfully requests the withdrawal of the rejection against claim 9 because a prima facie case of obviousness has not been established", the examiner respectfully disagrees. The examiner interprets the calculated required rates of return to include a projected yield in any year. It is old and well known to one familiar with probability theory, that the probability of achieving a required rate of return is the same as the probability of exceeding a projected yield. One minus this probability is the probability that the yield will fall short of the

projected yield. Hence Edesess teaches the feature "the probability that a fund will exceed a projected yield in any year".

Applicant's other arguments with respect to elected claims have been considered but are not persuasive.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander G. Kalinowski can be reached at (571) 272-6771. The fax number for Formal or Official faxes and Draft to the Patent Office is (571) 273-8300.

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Dr. N. Subramanian  
Primary Examiner  
Art Unit 3691

December 26, 2007